

(Model.)

J. E. WASSENICH.

TABLET FOR RECORDING SOUND VIBRATIONS.

No. 505,910.

Patented Oct. 3, 1893.

Fig. 1.

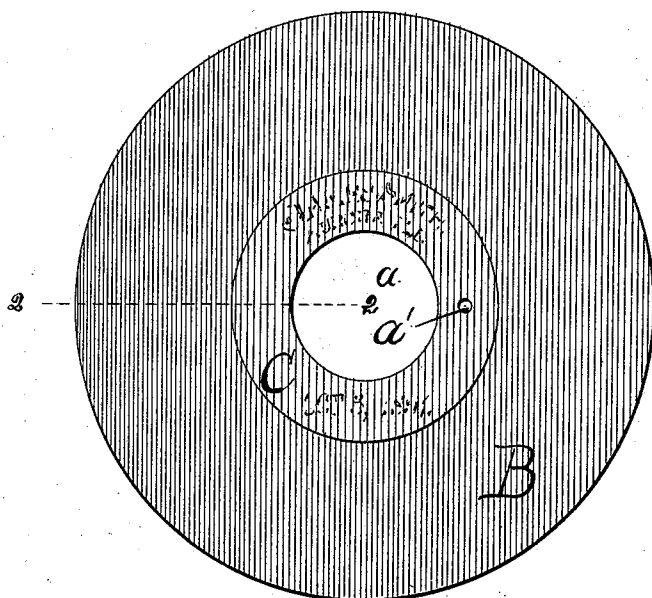
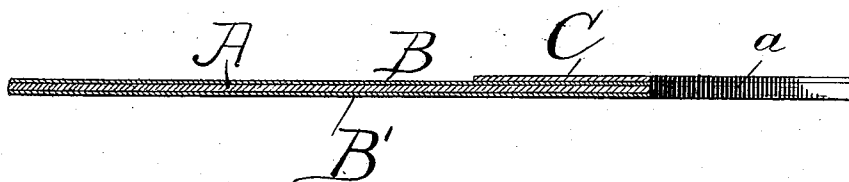


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TABLET FOR RECORDING SOUND-VIBRATIONS.

SPECIFICATION forming part of Letters Patent No. 505,910, dated October 3, 1893.

Application filed June 29, 1891. Serial No. 397,860. (Model.)

To all whom it may concern:

Be it known that I, JOSEPH E. WASSENICH, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Tablets for Recording Sound-Vibrations; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to the construction of tablets or disks for use in machines known upon the market as graphophones, or instruments for recording and reproducing vocal or other sounds, the tablet being the medium upon which the sound record is cut by the recording style. Such tablets have heretofore been constructed generally of a base or foundation of a rigid material provided with a surface coating of wax or a waxy composition. The tablets are sometimes cylindrical and sometimes flat. The base or foundation material has been composed of various materials, pasteboard, cardboard, leather, leatheroid, vulcanite and various other materials, but it is found that all these materials are liable to warp upon cooling of the wax or waxy composition when the latter is applied to the foundation or base, such application usually being made when the wax or waxy composition is hot. If, on the other hand, the base material is held rigid until the coating has been applied warping may occur at any subsequent time by reason simply of atmospheric changes to which the tablet may be subjected. In an attempt to overcome these difficulties and to prevent the formation of air bubbles in the wax by air held therein when cardboard or other porous material was used as a foundation, a metal base with a turned-up edge was proposed. When the hot waxy coating is applied to a thin metal base, the latter sometimes contracts unevenly and undulations are formed therein, thus preventing the tablet from being flat on the machine when receiving a sound record, and also affording the waxy coating a greater tendency to crack. Added to this objection was the additional weight of the metal over the cardboard or paper formerly used. When heavy cardboard, metal or a

substantially rigid base has been employed, it is found that the slightest bending of the disk caused accidentally when the latter is transmitted through the mail, or otherwise, will crack the waxy surface and destroy the impression thereon, while on the other hand a coating upon one side of a cardboard or similar base would cause the latter to curl up. For these and other reasons a disk tablet has been heretofore found to be of no commercial or practical value and hence all sound recording and reproducing instruments are provided with cylinders or tubes having a waxy coating on their periphery. To remedy these difficulties and to produce a disk or tablet that shall be at the same time so flexible as to withstand the ordinary handling, and even bending, without cracking the surface or coating thereof and which even if it should be slightly bended, will, owing to its flexibility, be readily forced against the table at the point where the sound recording or receiving style is working and thus the tablet will be for all practical purposes substantially flat when in the machine; and also to produce a tablet that will be compact and durable as well as light in weight and capable of commercial application, are some of the objects of the present invention and the same consists in the matters hereinafter pointed out and set forth in the appended claims.

In the drawings, Figure 1 is a plan view of a disk illustrating my invention, and Fig. 2 is an enlarged vertical sectional view of a portion thereof, taken upon line 2—2 of Fig. 1.

In the drawings let A represent the base, preferably circular and provided with an opening or hole *a*.

a' is a hole or opening by which the disk may be suitably secured in position upon the machine by means of a suitable pin inserted therethrough.

B represents the upper and B' the lower coating upon the base A, and C represents a thin ring or disk of paper or the like, upon which latter the name of the person writing or receiving the letter or message placed upon the disk together with the date of the message may or may not be printed, written or stamped, at the convenience of the user.

In carrying out my invention, I use a thin

flexible body such as paper or the like, ranging in thickness from about two one-thousandths to about five one-thousandths of an inch. To one or both surfaces of this base I

5 apply a thin coating of ozokerite wax, say approximately about from two one-thousandths to about four one-thousandths of an inch in thickness. These figures are approximate only, the essential feature being a flexible

10 wax on a flexible base to produce a flexible tablet. This coating may be very easily applied by machine or by hand by any of the well known processes for coating objects with wax. Cheapness is essential in order that

15 tablets can compare favorably as a substitute for writing paper. Lightness in weight is required in order that a number of these tablets may be passed through the mails for the amount of the usual letter postage. Flexibility is required in order that the tablet may

20 give and bend instead of cracking during ordinary handling and during its transmission through the mails. Compactness is desirable in order that in filing the tablets away a quantity of them may occupy the same or less

25 space than an ordinary letter. In making the tablets as above described, about one hundred of them may be placed in a box one inch deep. Durability is required and very desirable in order that the tablets may stand a considerable amount of rough handling both in placing them upon and taking them off

30 of the machine and otherwise handling the same.

35 A tablet made with a very thin base, as above described, and with an exceedingly thin coating on one or both sides, as above stated, will possess all of the desirable qualifications herein enumerated and avoid the objections heretofore pointed out as existing in

40 the disks or tablets heretofore attempted.

As a separate and further improvement, I point out the utility of the disk C of paper or other material applied to the central portion of one or both sides of the tablet and

45 upon which information may be printed or written whereby the particular disk and the message thereon may be recognized without placing the disk upon the graphophone or

50 machine for that purpose.

As a further and separate improvement I make use of colored wax for the different disks whereby this identification may be the more complete. By the use of different colors in the different disks one writing machine

may be used for several lines of business in the same office or for several persons in the same line of business without having the disks mixed or confused.

I do not desire to confine myself to the use of paper as a base nor to the use of an ozokerite wax as a coating inasmuch as any suitable base and any suitable coating which when united will produce an exceedingly flexible tablet will embody the essential feature of

55 my invention.

Where I place a sound recording surface of wax or the like to one side only of the base or body of the disk, I find it convenient to paint or cover the other side of the disk with a very thin coating of varnish or other similar material having the same coefficient of expansion as the sound recording surface coating, this to prevent warping and cracking.

What I claim is—

1. A flexible disk for recording sound vibrations adapted for use on a flat tablet holder, composed of a disk of paper or other suitable flexible material, with a coating of a suitable flexible sound recording material thereon, substantially as described.

2. A flexible disk for recording sound vibrations, consisting of a thin flexible body of paper or other suitable flexible material, having on both sides a thin flexible coating surface of a suitable sound-recording material substantially as described.

3. A flexible disk for recording sound vibrations consisting of a thin flexible body of paper or other suitable flexible material having on both sides a thin coating of wax or a wax-like sound-recording material, substantially as specified.

4. A phonogram disk of such an attenuated thinness as to lie loosely on a flat tablet holder and adapt itself firmly against the face of same at point where record is being made, substantially as described.

5. A flexible phonogram disk for use on a flat tablet holder and adapted to receive a sound record in the form of a spiral groove, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JOSEPH E. WASSENICH.

Witnesses:

TAYLOR E. BROWN,
GEORGE W. HIGGINS, Jr.